

Notice of Allowability

Application No.	Applicant(s)
09/939,388	IMAI ET AL.
Michael Kornakov	1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 11/06/2003.
- The allowed claim(s) is/are 1,2,5 and 18.
- The drawings filed on 24 August 2001 are accepted by the Examiner.
- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - All
 - Some*
 - None of the:
 - Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No. _____.
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
- Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - The translation of the foreign language provisional application has been received.
- Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No. _____.
 - including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.
- DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

<input type="checkbox"/> Notice of References Cited (PTO-892)	<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
<input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)	<input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____.
<input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. <u>8/24/2001</u>	<input checked="" type="checkbox"/> Examiner's Amendment/Comment
<input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	<input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance
	<input type="checkbox"/> Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given during the personal interview with Mr. J. Krueger, esq., on 1/15/2004.

The application has been amended as follows:

In claim 1 replace the words "packing the" after the words "packing means for" by the clause ---separately packing the individually---

In claim 1 replace the word "into" after the words "crushed resinous pieces" by the words ---the said packing means including---

These amendments are made in order to more clearly define the invention and specifically emphasize that a bag with transparent portion represents the specific limitation of packing means.

In claim 1 after the words "irradiating a light beam to the" insert ---individually---

In claim 1 delete the words "in the bag" after the words "crushed resinous pieces"

In claim 1 after the words "through the transparent portion" insert ---of the bag and---

These amendments are made in order to more clearly define the invention.

In claim 1 replace the word "for" after the words "cleaning means by the words --- capable of---

This amendment is made in order to emphasize that cleaning means include bag discharging elements.

In claim 1 replace the word "comprises" after the words "said cleaning means" by the word ---comprising---

In claim 1 replace the word "and" after the words "cleaning vessel" by the character ---, ---

In claim 1 delete the clause "for removing the foreign matters on the surface of the crushed resinous pieces is" after the words "and an abrasive surface"

These amendments are made in order to clearly identify the structural limitations of cleaning means.

In claim 5 replace the word "crushed" after the words "for irradiating a light beam to the" by the words ---individually crushed and separately packed---

In claim 5 delete the clause "in the bag" after the words "resinous pieces" These amendments are made in order to more clearly define the invention.

In claim 5 after the words "storage means for storing the identified kind of crushed resinous pieces and" insert ---being capable of estimating ---

In claim 5 delete the clause "while maintaining the correspondence between both the stored data" after the words "classification position on the conveying path"

These amendments are made in order to more clearly identify the specific limitations of storage means and fully supported by the instant specification.

In claim 5 delete the last paragraph, starting from the words "said classification means..."

In claim 18 after the words "a crusher that includes an endless conveyor for conveying" insert ---individual---

In claim 18 after the words "the opposed surface of said opposed member" replace the entire paragraph with the following ---and a gap between the conveyor and the opposed member is formed to crush the resinous pieces with said crushing edges or pins---

This amendment is made in order to emphasize that the recited gap is a structural limitation of the crusher.

In claim 18 replace the words "for packing crushed resinous pieces into" after the words "a packaging device" by the word ---including---

In claim 18 replace the clause "in the bag having a transport portion," after the words "a light beam to the crushed resinous pieces" by the clause ---through the transparent portion of the bag and---

These amendments are made in order to correct the typographical error and more clearly identify the structural elements of packaging device.

In claim 18 after the words "surfaces of the agitating blades being roughened" insert ---to make them abrasive---

This amendment is made in order to clearly distinguish the inside surfaces of claimed device from the apparatus of prior art.

Response to Applicants' Amendment

2. All previous rejections have been overcome by Applicants' amendment with remarks and in depth analysis of prior art and in combination with the Examiner's amendment, and the rejections are therefore withdrawn.

Allowable Claims

3. Claims 1, 2, 5 and 18 are allowable over the prior art of record.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

The instant claims recite a resin recycling system, which comprises a number of processing units, including cleaning means with specific structural elements. The combination of such units is not anticipated or suggested fairly by prior art references.

The closest prior art of record are Peterson (U.S. 5,365,075), Okamoto et al (U.S. 4,566,641), and Scarola et al (U.S. 5,433,652).

The references to Peterson, while being concerned with sensing station as the part of recycling apparatus, it also indicates that the future of plastics recycling is in the ability to collect, identify, sort, clean and resell the commingled feed stream of plastic waste, thus suggesting to those skilled in the art to combine specific processing

waste, thus suggesting to those skilled in the art to combine specific processing apparatuses in order to achieve the complete recycling of plastic materials. However, Peterson fails to anticipate or suggest fairly the specific features of processing units as instantly claimed, such as packing means, including bags with transparent portion and cleaning means, wherein the agitating member or interior walls are provided with abrasive surface.

The reference to Okamoto et al., while teaching a plastic breaking apparatus (crusher) for cutting and breaking plastic or fibrous sheet materials and indicating that the particularly recited apparatus can be utilized as a structural unit for plastic recycling lines, fails to name or suggest the other particular structural units for the plastic recycling system. Okamoto et al. also fail to provide or suggest fairly the specific structural elements of the crusher, as instantly claimed.

The reference to Scarola discloses an apparatus for the cleaning of plastic flakes to be recycled. The apparatus of Scarola comprises the vessel with water supply and plastic flakes loading ports, drainage ports and agitating blades. While teaching that it is typical before recycling to shred the plastic into small pieces (flakes), Scarola fails to identify or suggest fairly the other units of recycling system. Scarola also fails to anticipate or suggest fairly the abrasive surface to be provided on agitating member or interior walls, which is a specific feature of the instantly claimed cleaning device.

No other prior art, that anticipates or suggests fairly a combination of apparatuses with specific technical features for recycling systems as instantly claimed,

has been located as of the date of this office action. Therefore, claims 1,2,5,18 are allowed over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kornakov whose telephone number is (571) 272-1303. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571 272 1700

M. Kornakov

1/15/04

Michael Kornakov
Examiner
Art Unit 1746